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387 Powering the opto-electrical conversion system for the data transmission of the ATLAS Inner Tracker detector at the HL-LHC

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In view of the High Luminosity phase of the Large Hadron Collider the ATLAS experiment will upgrade its Inner Detector replacing it with an full-silicon Inner Tracker (ITk). The modules of this pixel detector will output data at a high data rate, each module producing up to 5.12 Gb/s. The ITk Pixel data transmission chain features an opto-electrical conversion system (Optosystem) powered by a two-stage powering system. This talk will present the Optosystem's powering concept, the tests aimed at its validation and the setup that will be used for quality assurance of the Optosystem powering.

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